

snails (but without thread-like striae such as *Planorbis trivolvis* has). Spire narrow, deeply sunken, with steep sides; the summit of the whorls acutely angular. Umbilicus deeply funnel shaped, the base of the whorls so narrowly rounded as to appear almost angular. Whorls nearly 5, the last very large, rounded at the periphery, somewhat flattened and sloping above, more convex below it. Aperture but slightly oblique, irregularly ovate, angular or subangular above, broadly rounded below, the peristome slightly expanded.

Diam. 36, height 24.5 mm.

Diam. 34, height 22 mm.

Lower Cape Fear River in the vicinity of Wilmington, North Carolina, collected by Mr. Wm. P. Seal.

This species is remarkable not more for its size than for the great width, far exceeding any other species. It differs from *P. trivolvis*, *ammon* and their allies in the surface sculpture and narrower umbilicus. *Planorbis corpulentus* Say is also somewhat related, but its differential features will be obvious in a comparison with Mr. Bryant Walker's illustrations and description of that species, NAUTILUS XIII, p. 133, plate 3 (April, 1900).

OBSERVATIONS ON THE BYSSUS OF UNIONIDÆ.

BY L. S. FRIERSON.

Recently, while collecting young or very small *Unionidæ*, two species were obtained having a byssus. Seven or eight specimens of *Lampsilis texasensis* Lea, were taken so provided, and one specimen of *Lampsilis fallaciosus* Simpson. The *L. texasensis* varied from one-eighth to one-half inch in length, while the *L. fallaciosus* was five-eighths of an inch long.

The size of the shell and the length of the byssus did not appear to bear any constant ratio, nor did the size (or diameter) of the byssus vary. The most of the *texasensis* and also the *fallaciosus* were taken by means of a combination flour scoop and sieve such as is used in our kitchens. This was used to scrape up the bottom, and then the mud washed out leaving the larger stuff behind. In this way the original position occupied by the shells could not be ascertained; but several specimens were taken attached to sticks, and these were hanging suspended in the water clear of the bottom.

The byssus was attached to the soft parts at about one-fourth distance from the anterior to the posterior end.

One of the *texasensis* had a byssus cylindrical in shape, about half the diameter of a human hair laid alongside for comparison. But that of the others and also of the *fallaciosus* was roughly ribbon-shaped, and resembled a flat piece of "molasses pulled-candy," both in texture and in contour. While wet they were very elastic, but exceedingly brittle when dry, appearing to be of the same composition as the ligament of the shell. These ribbons were irregularly twisted, now to the right, now to the left, as well as vertically undulatory. This gave them a sort of spiral spring effect which was quite noticeable.

The proximal end, when separated from the soft parts by slight traction, was bulb-shaped and attached to a style-like process which occasionally could be drawn from between the valves. My appliances were not equal to the task of determining whether this process was an outgrowth of the foot or of the mantle. The distal ends were attached to quite a little raft of heterogeneous material, and I believe that this "raft" serves to make a float, analogous to the balloons by which spiders sail through the air in the autumn months. None of them seemed to be directly fastened to any large body such as sticks or old shells, but merely entangled with the moss or algæ growing on the sticks, etc. The lengths of these byssi were about three to eight inches.

Several very small *Quadrulas* were taken. But no byssus was noted on any of them. Could this feature be a characteristic of *Lampsilis* and closely allied genera?

A NEW GUPPYA FROM FLORIDA.

BY HENRY A. PILSBRY.

Guppya miamiensis n. sp.

The shell is perforate, almost exactly like *Guppya gundlachi* in shape, size and color; glossy and smooth, with *no trace of spiral lines*, even under high magnification. Alt. 1.5, diam. 2.3 mm., whorls $3\frac{3}{4}$.

Miami, Dade Co., Florida. Types no. 77083 A. N. S. P., collected by S. N. Rhoads, 1899.

In Mr. Rhoads' list of Miami shells, published in a former num-